Claims

1. Spreading material comprising a porous flat-shaped structure impregnated with a wetting agent, wherein the wetting agent is an N-acyl-glycinate of formula I

$$R\text{-}CO\text{-}N(R^1)\text{-}CH_2\text{-}COOMe \qquad (I)$$

in which R denotes an aliphatic residue with 9 to 23 C atoms, in particular 11 to 17 C atoms, which is saturated and has one to three double bonds,

R^1 denotes hydrogen or lower alkyl and

Me is hydrogen or a metal atom.

2. Spreading material as claimed in claim 1, wherein R is the aliphatic chain of lauric acid, myristic acid, palmitic acid, stearic acid or palmitoleic acid, oleic acid (olein), linoleic acid, linolenic acid or isomers thereof

3. Spreading material as claimed in at least one of the claims 1 and 2, wherein the wetting agent is a mixture of compounds of formula I in which the structure and proportion in the mixture of the residues R corresponds to the structure and abundance in natural fatty acids e.g. tallow fat or coconut fatty acid.

4. Spreading material as claimed in at least one of the claims 1 to 3, wherein the wetting agent is a mixture of compounds of formula I in which the

residue R^1 is a preferably linear alkyl residue with 1 to 4 C atoms, in particular a methyl residue.

5. Spreading material as claimed in at least one of the claims 1 to 3, wherein Me is such a metal atom that the compound of formula I is water-soluble.

6. Spreading material as claimed in at least one of the claims 1 to 5, wherein the spreading material is impregnated with sodium N-oleoyl-sarcosinate.

7. Spreading material as claimed in at least one of the claims 1 to 6, wherein the spreading material contains 0.01 to 2.0 % by weight, preferably 0.03 to 0.5 % by weight N-acyl-glycinates of formula I relative to the weight of the material before impregnation.

8. Spreading material as claimed in at least one of the claims 1 to 7, wherein the underlying porous flat-shaped structure of the spreading material according to the invention is a textile sheet material made of monofilaments or corresponding multifilament yarns.

9. Spreading material as claimed in at least one of the claims 1 to 8, wherein the textile flat-shaped structure is a fabric, knitted fabric or fleece material with a weight per unit area of 10 to 200, in particular 10 to 50 g/m^2.

10. Spreading material as claimed in at least one of the claims 1 to 9, wherein the textile material has a thickness of 20 to 200, in particular 30 to 100 µm and/or a pore volume of 30 to 85, in particular 40 to 75 %.

11. Use of compounds of formula I, in which the residues R, R^1 and Me have the meanings stated in claim 1 to produce a spreading material.

12. Use as claimed in claim 11, wherein the compounds of formula I are used in a pure form or in the form of solutions or liquid formulations.

13. Use as claimed in at least one of the claims 11 and 12, wherein the formulation used contains auxiliary substances and/or additives in addition to the compound(s) of formula I.

14. Process for the production of a spreading material by impregnating a porous flat-shaped structure with a wetting agent or a wetting agent formulation, optionally adjusting the impregnated flat-shaped structure to a predetermined wetting agent uptake and optionally drying the material, wherein at least one compound of formula I in which the symbols R, R^1 and Me have the meanings stated in claim 1 is used as the wetting agent.

15. Process as claimed in claim 14, wherein the applied amount of the compound(s) of formula I is such that a coating of 0.01 to 2.0 % by weight, preferably 0.03 to 0.5 % by weight of the applied compounds

relative to the weight of the material before impregnation remains on the porous material.

16. Test strip composed of a flexible flat-shaped support that is optionally transparent or provided with inspection openings, on which one or several test fields are arranged next to one another which each carry one or several detection layers stacked on top of one another, wherein the test fields are covered by an overlay made of a spreading material as claimed in at least one of the claims 1 to 10.

17. Test strip as claimed in claim 16, wherein the spreading overlay is composed of one or several flat-shaped overlay elements which are attached to the test strip in such a way that a part of their surface can be displaced freely relative to the strip surface covered by this part in the direction of curvature produced when the object is bent.

18. Test strip as claimed in claim 17, wherein the test fields are covered by the displaceable zones of an overlay composed of two elements.

19. Test strip as claimed in at least one of the claims 17 and 18, wherein the spreading overlay is composed of two overlay elements whose displaceable regions face one another and overlap.

20. Test strip as claimed in at least one of the claims 16 to 19, wherein the overlap of the two overlay elements is above the separation line between the two test fields and preferably symmetrical thereto.

21. Test strip as claimed in at least one of the claims 16 to 20, wherein it has two single or multilayer test fields for the same or different diagnostically usable analytes of which directly adjoin one another or are separated by a gap.

22. Test strip as claimed in at least one of the claims 16 to 21, wherein the arrangement of detection layers and overlays on the test strip is covered with an inert flat-shÆped material in such a manner that a space only remains free that is adequate for sample application in the overlap region of the overlay elements viewed in the direction of the longitudinal axis of the test strip.

23. Test strip as claimed in at least one of the claims 16 to 22, wherein the hydrophilicity, transparency and the liquid conducting capacity of the overlay material are matched in such a manner that an analyte sample is distributed over the entire analyte-sensitive region of the test carrier, the test strip is self-dosing and excess sample remains above the application spot.

24. Test strip as claimed in claim 16, wherein it contains one test field which supports a monofilament spreading material as claimed in claims 6 and 8 which is larger than the test field and is attached to the support on both sides of the test field preferably by means of a spacer having the thickness of the test field whereby the part of the spreading material which extends beyond the test field is covered by sample-impermeable material so that a sample application is only

possible on that part of the spreading material which rests on the test field.

25. Process for the production of a diagnostic test strip in which single or multilayer detection fields are mounted on a support which is optionally transparent or provided with inspection openings, these are covered with a functional overlay which rests loosely on the test fields and is attached at the sides of the test fields and optionally an inert cover which only leaves the sample application site free is additionally mounted, wherein a functional overlay is used which is composed of a textile material having the features as claimed in one of the claims 1 to 10.

26. Process as claimed in claim 25, wherein a flat-shaped overlay element of several overlapping flat-shaped overlay elements that together form the overlay are attached to the test strip next to the test field(s) in such a way that a part of their surface covers the test field(s) and can move freely relative to the test field(s) in the direction of curvature produced when the object is bent.

27. Use of a diagnostic test strip as claimed in one of the claims 16 to 24 to determine an analyte in a liquid.

28. Method for the determination of an analyte in a liquid sample, in which a sample liquid is applied to the sample application site and the detection layer(s) is(are) observed for signal generation,

the signal generation being a measure for the presence or the amount of analyte in the examined liquid sample, wherein a diagnostic test strip as claimed in one of the claims 16 to 24 is used.